

ORAL ARGUMENT NOT YET SCHEDULED

No. 25-1005

**UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

CENTER FOR BIOLOGICAL DIVERSITY,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,**LEE ZELDIN, Administrator***Respondents,*

*Petition for Review of Final Administrative Action of the
United States Environmental Protection Agency*

**ADDENDUM OF STANDING DECLARATIONS
IN SUPPORT OF PETITIONERS' OPENING BRIEF**

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DECLARATION OF ILEENE ANDERSON, M.S.

I, Ileene Anderson, state and declare as follows:

1. The facts set forth in this declaration are based upon my personal knowledge. If called as a witness, I could and would testify to these facts. As to those matters which reflect an opinion, they reflect my personal opinion and judgment on the matter.
2. I am an adult citizen of the United States and reside in Los Angeles, California.
3. I am submitting this declaration on behalf of myself and the Center for Biological Diversity, a non-profit organization of good standing.
4. I am currently the California Deserts Director and a Senior Scientist with the Center for Biological Diversity (“Center”), where I have been a member since 1999, and employed since November 2005. In that capacity, my responsibilities include assessing various environmental impacts to public and private land resources, primarily in southern California and other parts of the southwestern United States. I use my biological education and experience to evaluate effects on wildlife and wildlife habitat as well as to recommend necessary protections for wildlife.
5. I have a Masters of Science in Biology from the California State University at Northridge. I have studied and surveyed for native plants and animals in California for over 32 years.

6. I was born and raised in the southern and central San Joaquin Valley of California and regularly return there to visit family and friends, as well as for work purposes to evaluate the status of rare animals and their habitats. When I was growing up, my family regularly went on local vacations that included camping in some of the nearby wild places.

7. I live in Los Angeles and regularly visit places to observe native wildlife in central and southern California. While I personally enjoy travelling to places to see rare animals in central and southern California, I also do so to evaluate habitat for rare animals.

8. Because of the high number of endemic animal species that are found in California and nowhere else in the world, I enjoy targeting places where I might be able to see rare and endangered animals, because it brings me great joy to be able to view these species, too many of which are teetering on the brink of extinction. I intend to continue visiting these areas regularly in the future and travel in the San Joaquin Valley at least several times a year to visit family and friends, for personal trips to explore wildlife, or for work to evaluate plant and wildlife habitat.

9. The Center is committed to protecting endangered species and wild places. The Center recognizes that rare species need habitat protection in order to recover and thrive at levels that ensure non-extinction. I rely upon the Center to represent my interests in protecting threatened and endangered species.

10. I am harmed by the impact of air pollution, including nitrogen oxides, sulfur oxides, and particulate matter pollution, on numerous rare and

threatened and endangered species that I have worked on both in the field and in securing conservation of their habitat for years. The direct impacts of air pollution on plants and wildlife, as well as the indirect effects through secondary pollution like deposition on soils and plant material, impacts on habitat by degradation and/or increasing invasive species competition, or changes to the food sources, have the potential to adversely affect a broad range of endangered species including numerous species I have worked on protecting over the years. While this declaration focuses on my interests in California species, I am harmed more broadly by air pollution in other states and it negatively affects my ability to appreciate them there.

11. The areas where I live and travel to observe wildlife in southern California and the San Joaquin Valley have some of the worst air quality in the country. Conversion of lands to development and agriculture has contributed a great deal to the nitrogen pollution and particulate matter pollution. Small particles of dust are suspended in the winds when land is disturbed for development or agriculture. Exhaust from cars, trucks, and other fossil fuel combustion, as well as fossil fuel extraction and industrial activities, also contribute to this particulate matter pollution, nitrogen pollution that can lead to ozone and particulate matter, and sulfur pollution that can lead to particulate matter. Animal agriculture can also contribute high amounts of dust, ammonia, and other air pollutants.

12. These types of air pollutants not only affect me and my family but affect my ability to observe wildlife because they can harm wildlife. Many species also suffer the direct health effects of breathing in polluted air. Indirectly these pollutants can adversely affect water quality through direct deposition, runoff into waterways, and acid rain. They can also adversely affect the prey of many of the species in this declaration, reducing the food sources that threatened and endangered species need to survive. Increased nitrogen pollution can change the composition of soil and make it harder for native species to outcompete invasive species that are adapted to utilize and thrive on higher nitrogen concentrations in soils.

13. I am very concerned about a suite of rare species that have virtually been extirpated from the San Joaquin Valley of California primarily due to habitat conversion to agriculture and only persist along the peripheries of their historic ranges. Along with their habitat conversion, they also suffer the effects of the poor air quality in the San Joaquin air basin. The mammal species include the federally and California state listed endangered giant kangaroo rat (*Dipodomys ingens*), and the federally endangered and California state listed threatened San Joaquin kit fox (*Vulpes macrotis mutica*).

14. The highly imperiled San Joaquin kit fox is one of my favorite animals because it is a smart and adorable mammal. I have visited habitat for the

San Joaquin kit fox on many occasions and at many locations. I regularly visit habitat for the kit fox including along the Kern River, the west side of the San Joaquin Valley near Taft, and along State Highway 33, and along Poso Creek in Kern County. I also enjoy seeing and documenting the urban kit fox populations that reside within the boundaries of the city of Bakersfield, California also. In my most recent field visits I did not see any San Joaquin kit foxes, but I saw its habitat and I searched for burrows that a San Joaquin kit fox would use, because they are very distinctive. I intend to regularly visit San Joaquin kit fox habitat in search of the species and will be making at least one trip later this spring once the kit fox pups are large enough to leave their natal burrows but prior to them dispersing. It is easier to see a family of foxes than individuals, and the pups are so cute as they play together.

15. The preferred prey of the San Joaquin kit fox are kangaroo rats and other small rodents, which also suffer from the effects of poor air quality in the San Joaquin air basin as well as adequate native forage when non-native, nitrogen-loving plants outcompete native plant species.

16. I have visited habitat for the giant kangaroo rat on many occasions and several locations. I visited its habitat in the Carrizo Plain area in San Luis Obispo County in March of 2023. While in the area, I located giant kangaroo rat territories, called precincts, which are obvious on the landscape because giant

kangaroo rats clip the vegetation around their burrows. However, I did not see any giant kangaroo rats, likely because they are primarily nocturnal and I was surveying during daylight into dusk. I intend to visit giant kangaroo rat habitat in the future to view their precincts and try to view their nocturnal activities.

17. I am concerned about the federally and state listed endangered Buena Vista Lake ornate shrew (*Sorex ornatus relictus*) another animals endemic to the San Joaquin Valley. These shrews are found in what is now small remnants of marshlands and riparian areas that once dominated in the lower elevations of the San Joaquin Valley. The Buena Vista Lake ornate shrew's habitat has also been significantly reduced from habitat conversion to agriculture and alteration of hydrological processes. The few acres of remaining habitat for the Buena Vista Lake ornate shrew is primarily surrounded by industrial agriculture, where air pollution from those activities could cause injury, harm, and/or mortality to this already highly imperiled species. The shrew is a voracious feeder, requiring consumption of its own body weight in insects and invertebrates each day in order to survive. Air pollution and the changes to land, vegetation that support the shrew's prey - insects/invertebrates - and waters resulting from the deposition of particles of air pollution can reduce the Buena Vista Lake ornate shrew's food sources which are necessary to sustain and recover the shrew's population. In addition, the Buena Vista Lake ornate shrew's habitat is moist soils commonly

found near a reliable water source, and soils and water sources are both affected by air pollution.

18. I have visited habitat for the Buena Vista Lake ornate shrew on several occasions, including its habitat in a tributary to Buena Vista Lake in Kern County. In 2022, I visited the Kern National Wildlife Refuge where the shrew is also known to occur, but I was unable to locate the animal. I enjoy visiting the Buena Vista Lake shrew's habitat for many reasons and I intend to continue to visit the Buena Vista Lake shrew's habitat in the future to try to view their activities and assess the conditions of their remaining habitat.

19. I am concerned about the federally listed endangered and state listed fully-protected and endangered blunt-nosed leopard lizard (*Gambelia sila*), another animal endemic to the San Joaquin Valley Desert and adjacent areas. The blunt-nosed leopard lizard's habitat has been significantly reduced by habitat conversion to agriculture.

20. I have visited habitat for the blunt-nosed leopard lizard on numerous occasions. For example, I visited a private reserve managed by the Center for Natural Lands Management in Kern County, south of State Highway 46, which is great quality occupied blunt-nosed leopard lizard habitat. I was able to see (via binoculars) blunt-nosed leopard lizards scanning for prey, but as soon as I advanced for a closer look, they dove into their burrows. I also saw a number of

suitable burrows in appropriate habitat. I intend to continue visiting blunt-nosed leopard lizard's habitat to try to find these lizards as they are foraging or basking.

21. I am concerned about the federally listed threatened Kern primrose sphinx moth (*Euproserpinus euterpe*), another animal found only in the Walker Basin, in Kern County, the Carrizo Plain, in eastern San Luis Obispo County and the Cuyama Valley in Santa Barbara and Ventura Counties, all in Central California. The Kern primrose sphinx moth's habitat is disjunct, but in some locations its habitat is directly adjacent to agriculture.

22. I have visited habitat for the Kern primrose sphinx moth several times. For example, I like to visit the Walker Basin to specifically target the Kern primrose sphinx moth's habitat in Kern County and if time permits also in the Cuyama Valley in San Luis Obispo County. As I have in the past, I target suncups (*Camissonia campestris*), the larval food source for the moth, along sandy washes, which is the habitat for the Kern primrose sphinx moth, and when I find the suncups, I look carefully for larval or moth stages of the Kern primrose sphinx moth. I hope to find Kern primrose sphinx moths because it has been a while since I have seen this species. I intend to continue to survey Kern primrose sphinx moth's habitat in the future to try to find the moths or larval stages.

23. I am concerned about the federally listed threatened coastal California gnatcatcher (*Polioptila californica*), a non-migratory bird species that is

only found along the coast of southern California and northern Baja, Mexico. The California gnatcatcher's habitat has been significantly reduced from habitat conversion to urban, suburban, and agricultural development. The small amount of remaining California gnatcatcher habitat often lies directly adjacent to agriculture or urban/suburban development.

24. I have visited habitat for the California gnatcatcher numerous times, including implementing quantitative surveys on gnatcatcher habitat characteristics in Orange County, California, for four years in the late 1990s after a fire in Crystal Cove State Park.

25. One trip to view coastal California gnatcatchers was in the fall of 2019 when I visited the Palos Verdes Peninsula. While there, I decided to wander down to the beach to see if I could spot a coastal California gnatcatcher—the Peninsula holds significant high-quality gnatcatcher habitat and has undergone significant efforts at habitat restoration. After walking only a short way down the trail towards the beach I heard the gnatcatcher's distinctive mewing call and I was overjoyed to see a California gnatcatcher flitting around in a California sagebrush. Later in the day, when I returned to my car, another California gnatcatcher was “mewing” in some dense coastal sage scrub adjacent to the parking lot. I could see it best with my binoculars. I continue to visit California gnatcatcher habitat along

the southern California coast, although in my surveys over the last couple of years in other places I have not documented any gnatcatchers.

26. I intend to visit California gnatcatcher habitat in the future to try to see and hear these sweet singing little songbirds and assess the quality of their habitat, primarily in San Bernardino and Riverside Counties, where California gnatcatcher habitat is being impacted by conversion to development and agriculture. I plan to continue to survey for California gnatcatchers whenever I am in its coastal sage scrub habitat.

27. I am concerned about the federally listed endangered and state listed threatened Stephen's kangaroo rat (*Dipodomys stephensi*), a highly localized endemic species that is only found in the western part of Riverside County and the northern part of San Diego County, California. The Stephen's kangaroo rat's habitat has been significantly reduced from conversion to urban, suburban and agricultural development. The little remaining Stephen's kangaroo rat habitat often lies directly adjacent to agriculture or urban/suburban development, where they can be directly affected by surrounding air pollution in the same way as the giant kangaroo rat.

28. I have visited habitat for the Stephen's kangaroo rat numerous times, visiting many of the reserves established for them. While the Stephen's kangaroo rat populations have stabilized and rebounded to an extent that the

species was downlisted from endangered to threatened in 2022, I am still harmed when continuing threats, such as air pollution, affect the species and my ability to view it. In one recent trip, I visited its habitat in Riverside County at the San Jacinto Wildlife Area. I looked for Stephen's kangaroo rats in the grassland habitat that they prefer. However, I did not see any Stephen's kangaroo rats, although burrows were present that could have been dug by the burrowing Stephen's kangaroo rat. Stephen's kangaroo rat is primarily nocturnal, so I was disappointed, but not surprised that I did not detect them, because I was present in the late afternoon. I intend to visit Stephen's kangaroo rat habitat in the future to try to view the nocturnal activities of this very rare species of kangaroo rat.

29. I am concerned about the federally listed threatened Santa Ana sucker (*Catostomus santaanae*), a native California fish endemic to only four southern California rivers – the upper portion of the Tujunga Wash, the San Gabriel River, the upper reaches of the Santa Clara River in Los Angeles County, and a fluctuating but short stretch of the Santa Ana River starting at Riverside Drive and downstream, in Riverside and San Bernardino Counties. The Santa Ana sucker's habitat has been significantly reduced from alteration of hydrological regimes and invasive species. The Santa Ana sucker habitat in the Santa Ana River is primarily tertiary treated wastewater, where the Santa Ana sucker is exposed to contaminants. I am harmed when the Santa Ana sucker is exposed to worsening

water quality through the deposition of nitrogen, sulfur or particulate matter that can harm water quality, reducing my opportunities to enjoy and appreciate the Santa Ana sucker in its native habitat.

30. I have visited habitat for the Santa Ana sucker numerous times. I have participated in the [Santa Ana Sucker Conservation Team](#) since 2005. I have participated in characterizing Santa Ana sucker habitat along the Santa Ana River, spearheaded by the U.S. Fish and Wildlife Service, for over ten years. I have assisted the U.S. Geological Survey to assess the population of the Santa Ana sucker in the Santa Ana River for over four years. For example, I helped monitor the Santa Ana sucker population along the Santa Ana River just downstream of Sunnyslope Creek convergence with the River. I looked for Santa Ana sucker in the river and helped take measurements of Santa Ana suckers that were captured during the inventory. I continue to participate in the Santa Ana Sucker Conservation Team and intend to do so in the future.

31. Vernal pool species suffer a range of threats, including air pollution. Vernal pools are ephemeral water features that are typically located in topographically flat areas underlaid with less permeable, often clay soils. During winter rains, low points on the landscape fill with water and form shallow pools, which through slow infiltration due to clay soils and evaporation, gradually shrink in size until they disappear by summer. While water is present, the vernal pools

host very unique plants and animals that require the formation and persistence of these ephemeral pools.

32. Critically imperiled endemic plants that rely on vernal pools include, but are not limited to, the federally and California endangered Orcutt grass (*Orcuttia californica* var. *californica*), the federally threatened and California endangered thread-leaved brodiaea (*Brodiaea filifolia*), the federally threatened and California endangered San Diego thorn-mint (*Acanthomintha ilicifolia*), the federally threatened spreading navarretia (*Navarretia fossalis*), the federally and California endangered San Diego button-celery (*Eryngium aristulatum* var. *parishii*) and the federally and California endangered San Diego mesa mint (*Pogogyne abramsii*), as well as unlisted but very rare plants.

33. Many of these species and much of their vernal pool habitat in southern and central California have been lost due to conversion to urban/suburban development and agriculture because of the relatively flat nature of the landscape. Now these species cling to existence in small set-aside areas in the midst of urban/suburban development and agricultural areas, further threatening these unique and critically endangered plants.

34. Unique shrimp-like invertebrates known as fairy shrimp, including but not limited to the federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) and the federally endangered Riverside fairy shrimp

(*Streptocephalus woottoni*), are at risk in the small vernal pool set-aside areas in the midst of urban/suburban development and agriculture.

35. I have visited vernal pool habitats in southern California numerous times. For many years from approximately 1991-2004 I was involved in vernal pool surveys as a consulting biologist throughout southern and central California. I am very familiar with some of the areas that are important for vernal pool species because I have been there many times over the course of many years. I continue to visit many of these vernal pool complexes regularly to look for rare and imperiled vernal pool species, including threatened and endangered invertebrates.

36. My interest in maintaining viable populations of these very rare plants and animals has been sustained over decades. I have provided comments on numerous development and land management plans both under the National Environmental Policy Act and the California Environmental Quality Act that involve all of these species and have regularly identified air pollution and its direct and indirect effects on threatened and endangered species and their habitat as an issue of concern.


37. My scientific, educational botanical and wildlife preservation interests have been, are being, and will continue to be adversely and irreparably injured by the Environmental Protection Agency's failure to complete the Endangered Species consultation process on the impacts of air pollution and air

quality standards on endangered and threatened species. In this case, these are actual, concrete injuries, and procedural injuries traceable to the failure of the Environmental Protection Agency to fully address the impacts to these species under the Endangered Species Act.

38. The legal violations alleged in this case cause direct injury to my aesthetic, conservation, recreational, scientific, educational, botanical and wildlife preservation interests and will continue to adversely affect and irreparably injure my interests if the Environmental Protection Agency continues to fail to adequately address the impacts to these species under the Endangered Species Act.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed this May 9, 2025.



Ileene Anderson

DECLARATION OF JOHN BUSE

I, John Buse, declare as follows:

1. I have personal knowledge of the facts and statements contained herein and, if called as a witness, could and would competently testify thereto.
2. I submit this declaration in support of Petitioners' standing.
3. I am a current resident of Indianapolis, Indiana. Between February 2005 and September 2011, I resided in Chicago, Illinois.
4. I am the General Counsel for the Center for Biological Diversity (the "Center"). I am also a member of the Center and have been a member continuously since 2005.
5. I am a 1985 graduate of the University of Chicago, with a degree in the History, Philosophy and Social Studies of Science and Medicine. I also have a master's degree in Biological Chemistry from the University of Illinois–Chicago Medical Center. I am a 1992 graduate of the University of California–Davis School of Law, where I focused on environmental law and related topics.
6. Thanks to my educational background and personal experience, I have a deep professional and personal interest in evolutionary biology and the diversity of life.
7. As a member of the Center, I count on the Center to represent my interest in protecting biodiversity and conserving threatened and endangered

species and their habitats through legal advocacy, public education, and other means.

8. Through my professional work and personal observation, I have become aware of the effects of air pollution on my professional, aesthetic, and recreational interests in threatened and endangered species. I am harmed by the effects of air pollutants like sulfur oxides, nitrogen oxides, and particulate matter because they pose a significant threat to the wellbeing and recovery of many other threatened and endangered species, as well as, to water quality and human health. When those wildlife species or the environment are harmed by air pollution I am also harmed because it negatively affects my ability to observe, enjoy, or study them in the wild.

9. The United States Environmental Protection Agency's decision to set national air ambient air quality standards without completing the consultation process with the United States Fish and Wildlife Service or National Marine Fisheries Service on potential impacts to endangered and threatened species and their critical habitats harms a range of animals. EPA's failure to comply with the Endangered Species Act's requirements to protect wildlife and their habitat harms me as well because it limits my aesthetic, spiritual, and professional interests of observing imperiled wildlife and their habitat.

Indiana Bat

10. I enjoy looking for rare native wildlife, fish, and plants in their natural habitats in and around where I live.

11. I regularly observe bats at or near my home in Indianapolis on summer and fall evenings and enjoy looking for the Indiana bat (*Myotis sodalis*). I have specifically observed Indiana bats at a known colony south of Indianapolis International Airport as part of a bat count. I watched and counted the bats as they emerged from their tree colony at twilight.

12. I appreciate the Indiana bat and its continued existence in the wild for its quiet but persistent presence, for its stealthy hunting of insects, and for the valuable habitat it maintains in close proximity to urban centers. I also believe that all species, including the Indiana bat, have inherent value, and have an interest in maintaining the diversity of life.

13. I have hiked and recreated near this species' habitat on numerous occasions while attempting to observe wildlife and intend to do so again in late summer and early autumn of 2024. I will continue to seek out and observe bats, including Indiana bats, as long as I reside in Indianapolis.

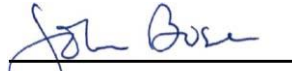
14. I hope to again see Indiana bats in the wild, but even if I fail to observe the species again, I benefit from knowing that the species persists in the wild. If the species could recover, and I would benefit from the recovery of the

Indiana bat throughout its native range. I am harmed when air pollution in and around Indiana bat habitat, negatively impacts the species and hinders the species' conservation and recovery. Negative impacts to populations of Indiana bats in Indiana reduces my aesthetic, professional, and spiritual appreciation of the area's unique natural environment.

15. In summary, I have professional, aesthetic, and recreational interests in the preservation of the Indiana bat and its habitats. These interests are being harmed by the Environmental Protection Agency's failure to complete the consultation process with the U.S. Fish and Wildlife Service on impacts of setting national ambient air quality standards. Specifically, I believe that the Environmental Protection Agency's failure to follow the law makes the species more likely to suffer further population declines. And if these species decline or become extinct, this loss would deprive me of the benefits I currently enjoy from their existence. Completing consultation with the U.S. Fish and Wildlife Service could result in protective measures aimed at reducing impacts of air pollution on these species, which is important to ensure that my interests in the species are preserved and remain free from injury.

I declare under penalty of perjury that the foregoing is true and correct.

DATED: June 10, 2025 in Graeagle, California.



John Buse

DECLARATION OF WILL HARLAN

I, Will Harlan, declare as follows:

1. I am over 18 years of age, have personal knowledge of the matters asserted in this declaration and if called upon to testify would state the same.
2. I have a graduate degree in biology from Clemson University, South Carolina, and a graduate and undergraduate degree in English from Emory University, Atlanta, Georgia.
3. I have worked at the Center for Biological Diversity (Center) since 2021 as a scientist. I have been a member of the Center since 2018. As a member, I rely on the Center to represent my interests in conserving native species and their habitats. I support its efforts to secure a future for all species, great or small, and to prevent development, pollution, and other threats from driving species extinct.
4. The Center's mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands and water, and public health through science, policy, and environmental law. Based on an understanding that the health and welfare of human societies are closely linked to the condition of the natural environment, the Center works to protect natural resources like air, water, and land and to secure a future for animals and plants hovering on the brink of extinction. A significant part of our work focuses on

ensuring that all federal agencies are meeting the substantive and procedural requirements of Section 7 of the ESA, which remains one of the strongest mechanisms to prevent the extinction of species in the United States.

5. When the EPA sets air quality standards for nitrogen oxides, sulfur oxides, and particulate matter without engaging in the ESA's consultation process it fails to consider the effects on endangered species of threats such as the acidification and nutrient changes of aquatic and terrestrial ecosystems, and how that air pollution affects wildlife directly.

6. As a result of my background and training in biology, I spend a lot of professional and personal time outdoors in forests and on rivers. I am from the Ozarks of Missouri. I was raised in the Ozarks, paddling and swimming in its creeks and rivers. My family resides in the Ozarks, and we regularly paddle, tube, swim, and snorkel in clean, clear Ozark rivers and streams.

Hellbenders

7. Salamanders are a special area of interest for me, especially hellbenders. I have interests in both the Eastern and Ozark hellbenders subspecies. I wrote my master's thesis on salamanders, and I am often in the field observing hellbenders and other salamanders.

8. I frequently take my family snorkeling and paddling on rivers where salamanders—and especially hellbenders—are known to occur. I have introduced

my children to hellbenders through these aquatic surveys and observed juveniles and adults in their native habitat.

9. I also have assisted state and federal wildlife biologists and university herpetologists in hellbender snorkeling surveys. I have helped relocate hellbenders threatened by imminent development. I conducted surveys in streams after extreme weather events. I have helped place artificial hellbender nest boxes in rivers. I have observed one-year-old juveniles in headwater streams and giant den masters guarding nests under boulders during breeding season.

10. Hellbenders are the largest salamander in North America, and they are the most thrilling salamander to observe in the wild. They inhabit the most pristine and scenic rivers, often protected by forests and public lands. I plan our family's travels and vacations around hellbender breeding season, and intend those plans to continue for years to come. I am also currently co-leading snorkel surveys for Eastern hellbender this spring and summer, and visiting Missouri to canoe and search for Ozark hellbenders this summer.

Illinois Chorus Frog

11. Similar to salamanders, I also have a strong interest in amphibians like frogs because they are vital to freshwater ecosystems where I have lived and indicators of the health of those freshwater ecosystems. One species that I have

particular interest in is the Illinois chorus frog because it lives near where I grew up and where my family resides.

12. I remember listening to the calls of the Illinois chorus frog as a child, and my home memories are filled with the Illinois chorus frog symphonies in the background. Illinois chorus frogs would call on spring nights. We would often go out with flashlights to see their glowing eyes in wetlands and vernal pools. Now I bring my own children back to the area to visit family and listen to the chorus of frogs on spring and summer evenings. Sadly, that chorus is fading.

13. I was born and raised in Missouri and Illinois, and so were four generations of my family. Nearly all my family still resides here. I travel to Illinois chorus frog habitat at least twice a year to observe native wildlife such as the Illinois chorus frog. My parents, aunts, uncles, and extended family all live in or near Illinois chorus frog habitat.

Brook Floater Mussel

14. I also have an interest in freshwater mussels. Like amphibians they are very sensitive to, and indicators, of water quality. My focus on freshwater species such as amphibians and mussels is especially important to my job.

15. I am deeply concerned about the decline and disappearance of freshwater mussels, and brook floater mussels in particular. I have a moral interest in this species. This brook floater mussel has innate value and a right to exist,

regardless of the many benefits it provides to me and others. These mussels were here way before any of us were, and they deserve a fighting chance at survival on the few scraps of habitat they have left.

16. I have looked for the brook floater mussel in habitats in the rivers of Southern Appalachia, including the Clinch River, the Chattooga River, and the Watauga River. I have plans to visit the Chattooga and the Clinch River this year with my wife and two sons to look for brook floater mussels and other species of freshwater mussels during family trips.

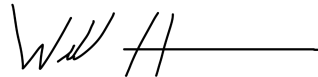
17. I have aesthetic, recreational, scientific, and professional interests in the amphibians and mussel listed in this declaration. I am injured by the EPA's failure to consult on the impacts of air pollution standards because the negative environmental impacts of air pollution grow larger as more and more pollution is emitted. Observing endangered species in the wild is already a challenge because they are so rare and already limited in numbers. If the recovery of the species in this declaration is hindered or their populations decline further, it will be more difficult to observe these species, which substantially injures my personal, recreational and professional interests in their conservation.

18. If the EPA were to consult on the impacts of air quality standards, it may reconsider implementing measures to reduce the threats of air pollution on species in this declaration. However, without consultations, the EPA will continue

to be completely uninformed about the harm resulting to endangered species from air quality standards.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this May 16, 2025, in Asheville, NC.

A handwritten signature in black ink, appearing to read 'Will Harlan', is written over a horizontal line.

Will Harlan

DECLARATION OF BRETT HARTL

I, Brett Hartl, make the following declaration:

1. I am competent to make this declaration. I provide this declaration based upon my personal knowledge. I would testify to the facts in this declaration under oath if called upon to do so.

2. I have an undergraduate degree in conservation biology from Prescott College, Arizona, and a law degree from Lewis and Clark Law School.

3. I have worked at the Center for Biological Diversity (“CBD”) since 2013. From 2013 to 2016, I was CBD’s Endangered Species Policy Director, and in 2017 was promoted to CBD’s Government Affairs Director.

4. Since 2014, I have taught as an adjunct professor at George Mason University, the American University Washington College of Law, and Prescott College. I have guest taught lectures at Harvard University, Columbia University, the University of Arizona and the Smithsonian Conservation Biology Institute. My classes have focused on environmental law and policy, wildlife management, international biodiversity conservation, ocean conservation, and ecological economics.

5. As part of my current job duties, I monitor Section 7 of the Endangered Species Act. I have drafted many of CBD’s comment letters on policies and regulatory proposals relating to all aspects of Section 7 since 2013. I have also reviewed many biological evaluations prepared by federal action

agencies including the EPA, as well as biological opinions completed by U.S. Fish and Wildlife Service's and National Marine Fisheries Service, including complex, nationwide consultations on agency actions, such as the EPA's regulatory program under Clean Water Act Section 316(b), the U.S. Army Corps' nationwide Clean Water Act Section 404 general permits, and the EPA's implementation of the renewable fuel standard under the Clean Air Act.

6. As part of my professional and personal interests I am aware of the negative effects of air pollution on threatened and endangered wildlife, both from the effects of gaseous air pollutants and their precursors and their depositional effects on land and water. Nitrogen and sulfur oxides, and particulate matter can negatively impact aerobic respiration for many species of wildlife which have more sensitive respiratory systems than people. Nitrogen oxides and sulfur oxides can change the acidity of waters reducing the quality of habitat and viability of those waterways for wildlife, and can degrade the aquatic food webs that such species rely upon. Nitrogen oxides can also change the soil nutrient load on land, which often allows non-native invasive species such as fire-prone grass species to thrive, and directly undermines the ability of threatened and endangered plants to recover. Particulate matter encompasses a broad range of particles that can pose risks to wildlife and the environment.

7. As a result of both my background and training in conservation, I consider myself an amateur naturalist. I look for, photograph, and record videos of

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birds, mammals and other wildlife, both in the United States and around the world. Watching wildlife is my deepest passion and my favorite personal pursuit, and I go looking for wildlife almost every week of the year. Thus far, I have observed 670 species of mammals and over 4,300 species of birds around the world. While I try to view new species, I also try to obtain photos and videos of species that I was unable to capture images of in the past. I view and share my photos and videos with my friends, colleagues, and the general public in various ways, including through my YouTube channel, which has over 2,900 subscribers. Some of my videos have been used on CBS, NBC and other television channels, and have been viewed by millions of people.

8. As someone that has dedicated his career to preserving wildlife, I also take great personal satisfaction in observing the diversity of wildlife that remains present due in part to the efforts of those in the conservation community and am particularly interested in viewing threatened and endangered species in their natural habitats. I enjoy bringing my students on field trips so that they can view and observe endangered wildlife in their native habitats and discuss how to protect and recover them with conservation professionals.

9. Among the threatened and endangered birds that I have observed include the Whooping Crane (*Grus americana*) and Southwest Willow Flycatcher (*Empidonax traillii extimus*) both of which are likely harmed by air pollution including nitrogen oxides, sulfur oxides and particulate matter .

10. I have travelled numerous times to view Whooping Cranes on their wintering grounds in and around Aransas National Wildlife Refuge on the Texas coast and in Nebraska on the Platte River during their migration as far back as 2003. My most recent trips to observe Whooping Cranes were to Texas in late March 2024 and to Nebraska in March 2021. My next trip to see them is likely to be in March of 2026. Whooping Cranes remain one of the rarest birds in North America and the entire migratory population only numbers 700 or so individuals. At its lowest point, only 18 Whooping Cranes were left on the planet. Seeing these iconic birds, one of the great conservation success stories of the last century, is always an incredible experience for me, and one of my life goals is to view all 15 species of cranes around the world. Whooping cranes feed heavily on blue crabs and other aquatic invertebrates as the main components of their diets. The Fish and Wildlife Service has explained that as water bodies acidify due to sulfur oxide pollutants, aquatic food webs can be impacted, which reduces food availability for whooping cranes. Air pollution caused harms to whooping cranes can impact their population, making it harder to observe them in the wild, injuring my personal interest in observing them.

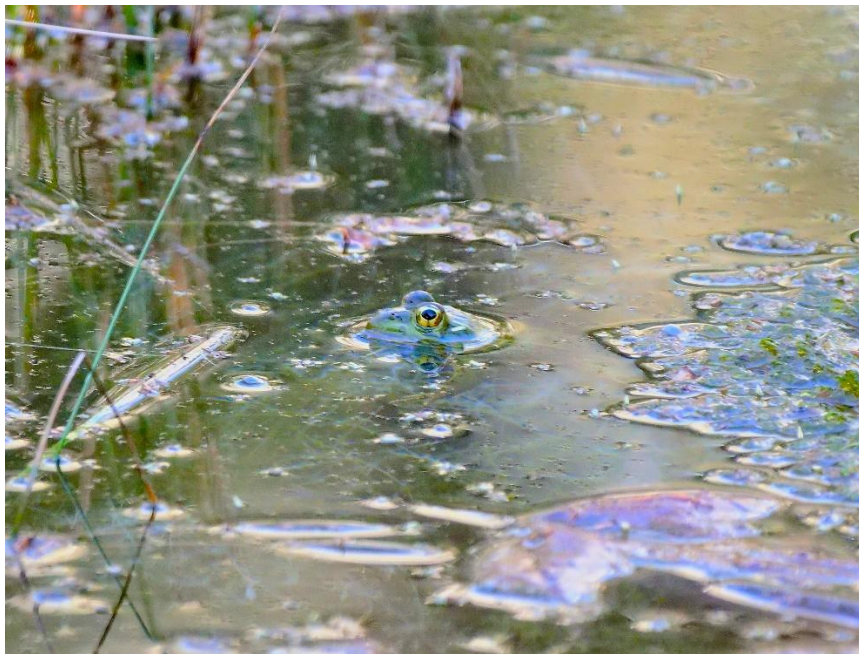
11. I have observed Southwest Willow Flycatchers many times, including when I worked as an endangered species biological technician for the U.S. Geological Survey in California in 2010. I observe and attempt to photograph Southwest Willow flycatchers each spring and summer in riparian areas of Arizona

including along the Verde and Hassayampa Rivers and at the local lake close to Prescott where I live. I most recently two pairs of Southwest Willow Flycatcher in May 2025 in Prescott. Below is a photo of one of those individuals from May:



12. Like most small songbirds, willow flycatchers are vulnerable to air pollution because their respiratory systems are very sensitive. In both California and Arizona these birds must migrate through areas with some of the worst air pollution in the country, including for particulate matter and nitrogen and sulfur oxides. These impacts reduce the fitness and health of these birds, which are already struggling to persist in California and Arizona, thus adding another threat that impacts their ability to breed successfully. Fewer flycatchers make it harder for me observe and enjoy them, and the failure of the EPA to address the threat to species like the southwest willow flycatcher therefore injures me.

13. I also enjoy looking for other types of wildlife in my travels including amphibians and reptiles. In Arizona I have searched on several occasions for the Chiricahua Leopard Frog (*Rana chiricahuensis*) in southern and central Arizona. I first observed a leopard frog in 2019 in the Las Cienegas National Conservation Area and took the picture below:



14. I have observed Chiricahua Leopard Creek in Fossil Creek Wild and Scenic River on several occasions and have looked for them in the Verde River and Agua Fria River in central Arizona. I will continue searching for them every spring and summer and hope to get better pictures of the frog in the future.

Chiricahua Leopard Frog's depend on healthy aquatic ecosystems and enough invertebrate prey in the water to survive upon. The Fish and Wildlife Service has Hartl Declaration

noted that acidification is a threat to the Chiricahua Leopard Frog that impacts the species' ability to recover. Specifically, leopard frogs are not only highly vulnerable to being exposed and harmed directly by air pollution, but they are also harmed when air pollution reduces the amount of insect and invertebrate prey which serves as their primary food source. I visited Shenandoah National Park many times between 2011 and 2017, when I lived in Washington, D.C. During those years time I would do at least one weekend summer camping trip every year to the park, and would search for salamanders at night inside the park, since the Appalachian mountains have some of the highest salamander diversity and abundance anywhere in the world. I return to Shenandoah and the Appalachian mountains nearly every year for at least one weekend in the spring or summer, most recently in 2024 and plan to return again in the spring of 2026. One of the more challenging species to observe is the Shenandoah salamander because it is nocturnal, lives only in a few of the highest mountain areas of the park, and observing them ethically without flipping over rocks or disturbing their habitats requires great patience. I have seen two Shenandoah salamanders, once in 2015 and once in 2022, but would like to observe them again, and hopefully take photographs of them.

15. The Fish and Wildlife Service has stated that acidification through acid rain is a significant threats to both the leopard frog and the salamander. For Shenandoah Salamanders in particular, acidification is one of the primary threats to

the species because it reduces invertebrate prey, but also directly harms the salamander because they absorb contaminants through their skin. The failure of the EPA to address the threats to amphibians like the Chiricahua Leopard Frog and Shenandoah Salamander harms my personal interests in being able to observe these creatures.

16. I am injured by the EPA's failure to analyze and address the harms to ESA listed species from the air pollution levels of nitrogen and sulfur oxides and particulate matter. Fewer individuals of these species of wildlife makes it less likely I will be able to observe and enjoy viewing them, diminishing my recreational, aesthetic, personal, and professional interests in the species in this declaration. The Endangered Species Act consultation process can result in conservation measures and alternatives to avoid harm to threatened and endangered wildlife and their critical habitat. A court decision that requires the EPA to consult can result in relevant, species-specific conservation measures for the species that I observe and enjoy would make it more likely that the harms of air pollution would be reduced, thereby redressing the injuries caused by the EPA's failure to meaningfully engage in the ESA consultation process.

I declare under penalty of perjury that the foregoing is true and correct.

Executed June 18, 2025, in Prescott, Arizona.

A handwritten signature in dark ink, appearing to read "Brett Hartl", is written over a horizontal line.

Brett Hartl

DECLARATION OF CHRISTOPHER SCOTT IRWIN

I, CHRISTOPHER SCOTT IRWIN, do hereby declare as follows:

1. I am over the age of eighteen, have personal knowledge of the following, and could competently testify thereto if called as a witness.

2. I currently live in Knoxville, Tennessee and am the past President of United Mountain Defense - where I worked as a staff attorney on watershed issues.

3. I have extensive training in watershed work. I have also worked as a Peace Corp volunteer where I did natural resources management in Africa. Much of the erosion control work I did in the Peace Corp revolved around water and how it interacted with soil. I also worked for the Watersheds Stewards Project in northern California doing watershed restoration and Chinook salmon restoration work, including underwater video. My work on salmon restoration further informed me on the dangers of pollution for aquatic life. Additionally, I have experience as a white water guide on the Nolichucky and French Broad Rivers. Healthy watersheds are about stream health. All of these experiences have helped me understand and relate as to my interest in the importance of aquatic ecosystems and in mussel populations in particular.

4. I am a member of the Center for Biological Diversity, and I follow its work closely. As a member of the Center I assisted in the Endangered Species Mural Project. As part of that project I coordinated with Gerald Dinkins, Curator

of Malacology (the study of mussels) at the McClung Museum of Natural History and Culture at the University of Tennessee, who helped with an endangered species mural focused on the freshwater mussel life cycle in Knoxville Tennessee. I am particularly proud of my work on this mural, which has been well documented.¹



¹ Mike Blackerby, Knoxville News Sentinel, “A mural with mussel: New greenway artwork highlights area’s biodiversity”, July 11, 2016, <http://archive.knoxnews.com/news/local/a-mural-with-mussel-new-greenway-artwork-highlights-areas-biodiversity-374bb65a-c91f-2aa4-e053-01000-386216471.html/>

5. I live next to the Tennessee River on Riverside Drive. Our river is a toxic, muddy industrial drainage ditch. I am harmed when poor water quality impacts the health of the river . Even on the hottest day in July, people are afraid to swim in the river because we all know how toxic and nasty it is. The polluted status of the Tennessee River, including contamination the deposition of air pollution, harms me because it affects my ability to enjoy the river and the ecosystem that is provides.

6. I am harmed when air pollution degrades the water quality in Tennessee rivers. I know that nitrogen and sulfur oxides can contribute to acid rain and increased acidification of aquatic ecosystems. Nitrogen oxides also contribute to nutrient enrichment effects in waterbodies that can harm aquatic ecosystems. The impacts of air pollution trickle down and negatively harm the waterbodies that are home to threatened and endangered species, and their habitats, that I have interests in.

7. Even though the Tennessee River is highly polluted, the Tennessee Basin as a whole in one of the most biologically diverse river systems for aquatic organisms in the United States. It harbors a high number of imperiled species with many fish and mussel species considered to be at-risk.

8. I have a long-standing interest in mussels. In addition to collecting and looking for them, I have been to the mussel population exhibit at the University

of Tennessee, and years ago I interviewed one of their scientists at the mussel lab. I have also worked on a project regarding mussel populations in the Clinch River watershed.

9. I have an intense interest in the impacts of pesticides on mussel populations as they are interesting species as well as indicator species for stream health. I grew up as a child collecting and studying mussel populations on the Tennessee River and surrounding tributaries. I would bring home dead shells to my family several times a week. My Grandfather lived on the banks of the Tennessee River. Growing up I spent countless hours collecting dead mussel shells and observing them in streams flowing into the River. I lost many a shoe deep in the muck wading out to find my shells.

10. I have successfully observed mussels in the wild countless times. I live right next to the Tennessee River, so I visit these areas weekly, sometimes daily. My family has been in East Tennessee for at least six generations and we have fished, swum, and waded all over. One of the very first things I look for when on the water are the shells of mussels. I like getting on river banks during low water and during that time I'm always looking to see if I can find mussel shells. The Clinch River has more species of endangered freshwater mussels than any other river in North America. I also enjoy visiting the Holsten and French Broad rivers in Tennessee. My experience and relationship with mussels and their

ecosystems has deep personal, aesthetic, and spiritual meaning to me. It is connected to both my personal relationship with the environment as well as my family history. Because of these relationships I have a deep aesthetic, personal, and spiritual interest in the health of mussels, their populations, and the ecosystems they rely upon.

11. Additionally, I have looked for point source discharges of pollution into waterways and done conductivity testing with a YSI meter to test for water quality and water pollution all over east Tennessee. When I conduct water quality monitoring mussel populations are one of the things I look for. I did this as both a volunteer and past staff attorney for United Mountain Defense (UMD).

12. I intend to keep visiting waterways in Tennessee for years to come, for both professional and personal reasons. I am the past President and a staff attorney for the UMD. The UMD's mission is to protect Tennessee waters, so I anticipate with certainty that I will continue to visit these areas for months and years to come. Additionally, I live next to the Tennessee River, and my Aunt lives on the Tennessee River and owns marshland where I look for mussels.

13. Mussel populations are very important to me. I think they are neat. The history of mussels and the history of this region fascinate me. I have seen the specialized hook traps that used to be used to drag the sediment to capture them a hundred years ago. I have watched videos on the mussels describing how they used

to make buttons out of them and I enjoy visiting the mussel exhibit at the University of Tennessee Museum. I have visited with Gerald Dinkens at the University of Tennessee many times and have viewed most, if not all, of the mussel species in the state as a result of those visits. I hope to see many of those mussels in the wild in their natural habitat as well.

14. I encounter mussels on at least a monthly basis and I look for them everywhere. I always get a little nervous when I do not see them in a stream. It makes me happy when I see them recovering in a stream or creek. Every time I find only dead small ones, I know the stream is sick and it makes me feel ill inside.

15. I am very concerned about threatened and endangered species living in Tennessee watersheds, especially mussels, and enjoy looking for them. For example, I like to look for the pink mucket (*Lampsilis abrupta*), and Cumberlandian combshell (*Epioblasma brevidens*), which are two of the species depicted on the mussel endangered species mural in Knoxville that I helped create.

16. I believe all life has equal validity and when I see yet another example of humans taking priority over all other life, like with the contamination of rivers from air pollution, I am harmed. I believe all species, including mussels, have the right to exist.

17. As an indicator species, mussels tell me how well we are doing at being stewards of the earth and what kind of planet we are handing off to the next

generation. The loss of mussels is one of the indicators as to how contaminated the river is. If it were cleaner, if it had healthier mussel populations, it would be a sign that the river is not as filthy as it looks.

18. In sum, I have environmental, recreational, and aesthetic interests in viewing federally protected wildlife, especially mussels that are negatively affected by the Environmental Protection Agency's failure to follow the Endangered Species Act and protect imperiled wildlife. My ability to freely visit waterways is harmed by the failure of our federal government to protect aquatic wildlife from air pollution, including setting air quality standards that prevent harm to threatened and endangered species. I am less able to see wildlife that is rarer because of the impact of pollution on waterways and I would be likely to visit waterways in Tennessee more often if they were less polluted and I was more likely to see endangered species, such as mussels there.

I declare under penalty of perjury that the foregoing is true and correct.

Dated this May 12, 2025

A handwritten signature in black ink, appearing to read 'Chris Irwin', written over a horizontal line.

Chris Irwin

DECLARATION OF JEFFREY MILLER

I, Jeffrey K. Miller, declare as follows:

1. I am over the age of twenty-one. The facts set forth in this declaration are based on my personal knowledge and if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I currently live in Ashland, Oregon. I previously lived in California for 60 years.

3. I have been a member of the Center for Biological Diversity (“CBD”) since 1995 and have been employed full-time on the staff of CBD since 2001. My duties include, among other things, research, assembling endangered species listing petitions, community organizing, assisting with various conservation campaigns, educational presentations, writing press releases, contacting media, and other work to protect and restore endangered and threatened species and their habitats, primarily in California and Oregon.

4. I am also the founder and director of the Alameda Creek Alliance, a community watershed group dedicated to protecting and restoring the natural ecosystems of the Alameda Creek watershed. To restore the Alameda Creek watershed’s native wildlife, plants, habitats, and ecosystems, the Alameda Creek Alliance focuses its efforts on restoring steelhead trout and salmon, indicator species of watershed health.

5. I have worked on conservation campaigns for a wide array of imperiled wildlife species in California, including native fish, birds, raptors,

amphibians, reptiles, carnivores, ungulates, rodents, insects and plants. I have written or co-written many federal Endangered Species Act listing petitions, including petitions for the mountain yellow-legged frog (*Rana muscosa*), green sturgeon (*Acipenser medirostris*), Pacific lamprey (*Entosphenus tridentatus*), Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), Clear Lake hitch (*Lavinia exilicauda chi*), foothill yellow-legged frog (*Rana boylei*), and Siskiyou Mountains salamander (*Plethodon stormi*). I have also written, or co-written state California Endangered Species Act listing petitions for the western burrowing owl (*Athene cunicularia hypugaea*), Delta smelt, longfin smelt, mountain yellow-legged frog, Clear Lake hitch, foothill yellow-legged frog, and Cascades frog (*Rana cascadae*).

6. In 2024 I published a guide to San Francisco Bay Area wildlife through Heyday Books, which details the ecology, range, status, conservation efforts, and threats to more than 50 regional wildlife species, including mammals, marine mammals, birds, fishes, reptiles and amphibians, and invertebrates.

7. Personally, I am an avid amateur naturalist and birdwatcher and frequently visit habitat for rare and endangered birds and other wildlife throughout California and Oregon. To look for and observe such wildlife, I often visit habitat throughout the Central Valley, San Francisco Bay Area and Bay-Delta, the central California coast, and Southern California. I also enjoy searching for and observing other wildlife species while birdwatching. In 2018 I took up wildlife and bird photography, in order to be able to better share the beauty and importance of California's native and imperiled bird and wildlife species with others.

8. I go birdwatching almost every day. In the last two decades, I have seen 541 different species of birds in California alone. I lead annual birdwatching trips for the public at the Point Reyes Birding and Nature Festival in Marin County, and at the California Bird Festival at Morro Bay in San Luis Obispo County, having participated in both festivals in 2025 and intending to continue to do so in the future. I also participate annually in several Christmas bird counts throughout California, volunteer-based citizen science survey efforts coordinated by the Audubon Society to promote bird conservation and assess long-term trends in winter bird populations.

9. Through my professional work and personal hobbies, I have become very concerned about the impacts of pollution on endangered and threatened species. Nitrogen oxides produced by burning fossil fuels contribute to formation of ozone, acid rain, and nutrient pollution. Acid rain can harm plants and wildlife by altering the pH levels of soils and water bodies. I know that amphibians, aquatic insects, and crustaceans are vulnerable to acidic waters. I am aware of the threats that soot, created by burning of fossil fuels and fracking, poses to imperiled wildlife. Research has linked soot to harms to endangered birds, reptiles, and small mammals. Reduced visibility and haze caused by soot also damages vegetation and wildlife habitats by reducing nutrients in soil. I am aware that these types of air pollution can do devastating and irreversible harm to vulnerable wildlife and plants. With many endangered species already suffering from habitat loss, the effects of climate change, low population numbers, and other threats, harm from

air pollution affecting imperiled species could push these species closer to extinction or impede their recovery.

10. Many of the species in this declaration live in areas with some of the worst air quality in the nation, such as the San Joaquin Valley and southern California. Particulate matter pollution and nitrogen pollution can directly harm these species and alter the habitat they rely upon. Nitrogen and particulate matter pollution, largely from burning fossil fuels and industrial agriculture can impair water quality, change the chemical composition of soils, and make air difficult to breathe for all living things. I have professional, recreational, aesthetic, informational, and spiritual interests in the species discussed below. My interests are harmed by EPA's failure to comply with the Endangered Species Act when it sets national ambient air quality standards, which should fully analyze the effects on individual ESA protected species and their critical habitats. ESA compliance is essential to inform mitigation measures and avoidance strategies to better protect wildlife and the environment from air pollution.

San Joaquin Kit Fox

11. The San Joaquin kit fox (*Vulpes macrotis mutica*) is listed as an endangered species under the federal Endangered Species Act.

12. The San Joaquin kit fox is the smallest fox in North America and is an adorable creature with distinctive large ears and long legs.

13. The kit fox once ranged throughout the San Joaquin Valley, but now resides only at the edges, from southern Kern County in the south to Alameda, Contra Costa, and San Joaquin counties in the north.

14. I was lucky enough to see a San Joaquin kit fox out in the open during daylight hours on a memorable occasion near Tracy, California in 2011. A San Joaquin kit fox was running across an open field next to a road I was driving on. In my decades in California, I had seen hundreds of foxes (including native gray foxes, introduced red foxes and endemic island foxes), but I could immediately tell this was a San Joaquin kit fox. I noticed its oversized ears, small size, long bushy tail and distinctive way of moving, and knew I was in the kit fox's restricted habitat area. Seeing this kit fox was an amazing experience given how rare the species is. It was exciting to see one of California's signature endemic species in the wild.

15. I have subsequently seen and photographed San Joaquin kit foxes at Carrizo Plain, once in June 2018, twice in December 2018, and recently in January 2025. I had close encounters with a San Joaquin kit foxes at Carrizo in June 2018 and January 2025, and got the close-up photos included below.





16. I regularly visit Carrizo Plain; with trips in February 2016, June 2018, twice in December 2018, March, April and May 2019, five trips in 2020 alone, January, March and April 2021, January and March 2022, and January 2025. I have trips planned to return to Carrizo Plain in 2026. I have also looked for kit foxes in suitable habitat in Kern County (Lost Hills and Kern National Wildlife Refuge) in March and December 2018; and at Camp Roberts in July 2016 and May 2018.

17. I often visit San Joaquin kit fox habitat while birdwatching in the Central Valley, San Joaquin Valley, Carrizo Plain, Camp Roberts and Fort Hunter Liggett. I plan to continue regularly visiting such habitat in the future. I also regularly visit kit fox habitat in eastern Alameda County in Altamont Pass and Corral Hollow, up to five times each year and will continue to do so.

18. I plan to look for San Joaquin kit fox in the wild again, but even if I do not observe the kit fox, I am happy knowing that these animals exist in the wild.

I look forward to the kit fox's full recovery under the protections of the Endangered Species Act. If the small number of remaining kit foxes were reduced or extirpated, the ecological value of the Central Valley's natural environment and my appreciation of these areas would be diminished.

Valley Elderberry Longhorn Beetle

19. The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is listed as a threatened species under the federal Endangered Species Act.

20. The valley elderberry longhorn beetle is an attractive red and black beetle that lives in riparian zones throughout California's Central Valley, from Redding to Fresno. The valley elderberry longhorn beetle's entire life cycle is associated with elderberry trees. Females lay eggs in the bark of the tree, and the larvae hatch and burrow into the stems. For the first one-to-two years of their lives, the larvae eat the elderberry tree's interior wood as their sole source of food. Adults emerge in the spring through distinctive exit holes and feed on the foliage until they mate.

21. Elderberry trees can be found in riparian forests along rivers and streams in the Sacramento Valley and San Francisco Bay-Delta. Over ninety percent of such riparian forests have been cleared in the last century for agricultural and urban development.

22. I have seen the related and more common California elderberry longhorn beetle on several occasions. While birdwatching in the Central Valley in 2009, I found longhorn beetle drill holes in elderberry trees that were likely made

by valley elderberry longhorn beetles, based on their location, specifically along the American River Parkway adjacent to the lower American River. I subsequently began looking for longhorn beetle drill holes in elderberry trees while birdwatching within other suitable habitat for the valley elderberry longhorn beetle in the Central Valley, such as along the Cosumnes River, Putah Creek, the Llano Seco Unit of the North Central Valley Wildlife Management Area, and the Colusa National Wildlife Refuge.

23. I have also visited the Sacramento River in April 2016; Cosumnes River Preserve in February 2018; Yolo Bypass in April 2018 and August 2022; and the American River in February 2019 in search of the valley elderberry longhorn beetle and plan to continue to search for the beetle in future trips in 2026. I regularly visit Central Valley rivers and riparian areas with valley elderberry longhorn beetle habitat, about three-to-four times a year, and plan to continue doing so in the future for birdwatching and salmon restoration activities. Additionally, I regularly attend an annual birdwatching festival in the Central Valley that involves spending time in the valley elderberry longhorn beetle's habitat.

24. In 2014, I submitted regulatory comments for CBD and helped put out two press releases to publicize the threatened removal of Endangered Species Act protections for the valley elderberry longhorn beetle. CBD's advocacy and publicity with the Xerces Society for Invertebrate Conservation prevented the premature delisting of this beetle species, which is still an imperiled species.

Successful recovery of the valley elderberry longhorn beetle will inspire and promote similar efforts for other imperiled native species.

25. I plan to look for the valley elderberry longhorn beetles in the wild, but even if I do not observe the beetle, I am happy knowing that it exists in the wild. I enjoy knowing that the beetle is recovering as a listed species and I look forward to its full recovery. If the remaining populations of the valley elderberry longhorn beetle were extirpated, the ecological value of the Central Valley's riparian habitat and my appreciation of these areas would be diminished.

California Tiger Salamander

26. I have a conservation and personal interest in the California tiger salamander (*Ambystoma californiense*). I have been involved in CBD's campaigns to secure protections under the state and federal Endangered Species Acts for California tiger salamander populations, and worked on press releases, reports, and securing public and expert comments to protect the species and educate the public about the decline of California tiger salamanders and the loss of their vernal pool habitats. I have also worked on many CBD and Alameda Creek Alliance efforts to stop or reduce urban development in tiger salamander habitat in the East Bay and in Sonoma County.

27. In 2009 I went out with a tiger salamander researcher at night to participate in surveys for the California tiger salamander at Jepson Prairie Preserve in Solano County. I have also seen tiger salamander larvae on several occasions in ponds in Sunol and Ohlone Regional Parks in Alameda County. I plan to return to look for California tiger salamander when I annually visit eastern Alameda County

for the Eastern Alameda County Christmas Bird Count and as part of my regular work with the Alameda Creek Alliance.

Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-Billed Cuckoo

28. I first became interested in the least Bell's vireo (*Vireo bellii*) and southwestern willow flycatcher (*Empidonax trailii extimus*) in 1998, when I was part of CBD's campaign to force the U.S. Forest Service to amend its management plans for Southern California's four national forests to better protect riparian habitat for Bell's vireo and willow flycatcher. From 2010 to 2014 I was involved in CBD's successful campaign to reverse an Army Corps of Engineers policy that would require stripping levees of vegetation that provides important habitat for imperiled California species, including the least Bell's vireo and southwestern willow flycatcher.

29. I saw my first least Bell's vireo in 2010. I have searched for least Bell's vireo in San Diego and the Tijuana River Valley area (September 2016, September 2017, April 2018, and May 2022); in the Salton Sea area (February 2016, September 2016, September 2017, and April 2018); in the Kern River drainage (July 2017, July 2018, and July 2019); and in Big Morongo Canyon (April 2019). I have now seen least Bell's vireo seven times. I plan to return to the Tijuana River Valley, Salton Sea, and Kern River drainage in 2026 to look for this bird species.

30. I saw my first southwestern willow flycatcher in 2009. I have since seen this species on 61 occasions while birdwatching in Mono County, the Kern

River drainage, the central California coast, Salton Sea area, and Imperial Valley area. I looked for southwestern willow flycatcher in Inyo County and Mono County in 2017 and more recently in early 2025. I plan to look for this bird in 2026 along the eastern slope of the southern Sierras.

31. I have been lucky enough to see the elusive yellow-billed cuckoo (*Coccyzus americanus*) in Florida, Louisiana, and Texas, including 20 sightings in April and May of 2024 in Texas. These observations made me want that much more to see the western, or California, subspecies of yellow-billed cuckoo. I have been birdwatching in suitable western yellow-billed cuckoo habitat searching for this bird at the Kern River Preserve in 2017, 2018, and 2019; and along the Sacramento River in February 2019. I plan to return to the Kern River Preserve and Sacramento River in 2026 to look again for the cuckoo.

Delta Smelt

32. In my capacity at CBD I helped prepare petitions to increase federal and state Endangered Species Act protections for Delta smelt. In 2006 we submitted a petition to uplist Delta smelt from threatened to endangered under the federal Endangered Species Act. In 2007 we submitted a petition to uplist Delta smelt from threatened to endangered under the California state Endangered Species Act. In 2009 our petition was granted, and Delta smelt was protected as endangered under the California state Endangered Species Act. I was involved in working with other conservation groups, and writing 13 press releases, web site materials and action alerts for these protective efforts. My recent visits to the Delta included Bethel Island, Brannan Island State Recreation Area, Isleton, lower

Mokelumne River, Woodbridge Ecological Reserve, and Suisun Slough in 2016; and Cosumnes River Preserve and Rio Vista in 2018. I plan to make future trips to the Delta to view and look for Delta smelt, including in 2026.

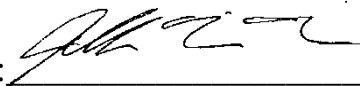
33. In summary, I have professional, recreational, aesthetic, and spiritual interests in the conservation and preservation of many imperiled native species in California, such as the valley elderberry longhorn beetle, San Joaquin kit fox, Delta smelt, western yellow-billed cuckoo, least Bell's vireo, southwestern willow flycatcher, California tiger salamander, and their habitats. I derive benefits from visiting, observing, and restoring intact natural riparian ecosystems which are habitat for some of these species, and my enjoyment of these habitat areas for recreational, professional, and spiritual purposes is dependent upon healthy ecosystems and wildlife populations.

34. As a lifetime conservationist, I have aesthetic, spiritual and moral interests in these species. It is important to me that these and other species survive and thrive in their natural habitat, whether or not I am able to encounter them. It is my belief that no wildlife species should be allowed to be driven extinct by the actions of humans and that no species should be allowed to go extinct if it can be prevented. My spiritual fulfillment comes from interacting with nature and protecting wild places, wildlife, and intact native ecosystems. The loss of these species will injure my aesthetic and spiritual enjoyment of native habitats in my home state. I believe that biodiversity has inherent value and it would be a moral and spiritual failure of our society to not protect our most vulnerable wildlife.

35. As a conservationist, I have a professional and scientific interest in protecting and recovering these species. The protection and recovery of these and other species are essential to my work to promote funding, take regulatory action, advocate, and organize citizen involvement in efforts to protect endangered species.

36. These interests are being harmed when the EPA fails to fully assess the full impacts of air quality standards on ESA protected species, which could harm, kill, and further imperil these species and other endangered and threatened species. The agency's failures make these species more vulnerable to habitat destruction, injury, death, and population declines. If these species decline or become extinct, the loss would deprive me of all the benefits I currently enjoy from their existence and recovery. If the EPA's air pollution standards had been well-supported and in compliance with the ESA, they could have resulted in more protective measures, including avoidance and mitigation to protect wildlife, to ensure the conservation and recovery of these species, ensuring that my interests would be free from injury.

37. I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed on May 21, 2025, at Ashland, Oregon.

By: _____

Jeffrey Miller

DECLARATION OF Christopher D. Nagano

I, Christopher D. Nagano, make the following declaration:

1. I am a resident of Washougal, Washington.
2. I am competent to make this declaration. I provide this declaration based upon my personal knowledge. I would testify to the facts in this declaration under oath if called upon to do so.
3. I am a retired endangered species biologist. I am also an avid butterfly watcher, especially species listed under the Endangered Species Act of 1973, as amended (“ESA”). I also seek out rare or ESA listed tiger beetles to observe.
4. Prior to retirement, I worked as a Senior Scientist in the Endangered Species Program at the Center for Biological Diversity from 2017-2019. At the Center, I worked on protecting insects and reptiles.
5. Prior to coming to the Center, I worked for 27 years, from 1989 to 2016, in the Endangered Species Program at the U.S. Fish and Wildlife Service (“USFWS” or “Service”) based in Carlsbad and Sacramento, California, and Albuquerque, New Mexico. From 1989 to 1995 I was the only entomologist in the Service’s Endangered Species Program. During my entire career with the USFWS I was responsible for administering and enforcing the protections of the ESA for listed butterflies, insects and many other species. As part of this responsibility, I was required to have an up-to-date comprehensive knowledge of their biology, ecology, biogeography, and especially threats to their survival and recovery in the wild. I was the lead biologist, co-lead biologist, or primary and secondary reviewer when I was a supervisor of listing documents (90-day findings, 12-month

determinations, proposed rules, and final rules) for many insects, fish, reptiles, and mammals. I also completed many hundreds of ESA section 7 formal and informal consultations; I was one of the “go-to-guys” for difficult or novel section 7 issues at the Sacramento Field Office. In or about 1989-90 I also provided guidance to the California Department of Food and Agriculture about their Medfly control program in the Los Angeles, California, area.

6. It was a requirement of all my positions at the U.S. Fish and Wildlife Service that I had the training, experience, and skill to take a “hard look” at the if any threats to a plant or animal was such that listing it under the ESA was necessary, potential adverse effects of Federal actions on ESA listed species, whether take (as defined by section 9 of the ESA) would occur as a result of non-Federal actions, and, in the cases where section 9 may have already occurred, to determine if a criminal violation or civil action had been committed and to undertake the appropriate Government response.

7. Prior to going to the Service, I worked for several years in the mid-1980s as a research associate in the Entomology Section at the Natural History Museum of Los Angeles County. My areas of scientific investigation included monarch butterflies and tiger beetles. I conducted fieldwork throughout their California wintering range and inland summer habitats, and visited their wintering grounds high in the mountains of central Mexico. I also had several discussions with my then supervisor, the late Dr Charles L. Hogue, Curator of the Museum’s Entomology Section, on the effects of the California Department of Food and Agriculture’s Malathion spraying program for the exotic Medfly and its effect on resident insect populations and species.

8. I have a Master of Environmental Studies degree from the Yale School of Forestry and Environmental Studies. My graduate research was on the international trade in butterflies and other insects. During this period, I was an intern working on imperiled insects and endangered species issues at the Environmental Defense Fund in Washington, D.C.

9. In sum, I dedicated my career to the scientific research and protection of endangered, threatened, and imperiled butterflies, tiger beetles, and other listed invertebrates. And as a retired USFWS endangered species entomologist I enjoy observing and learning about ESA listed and imperiled butterflies, tiger beetles, and other invertebrates. I share my observations and knowledge with my friends, former colleagues, and the general public in various ways, including social media and the internet.

10. I am particularly interested in viewing threatened and endangered butterflies and tiger beetles, and other ESA listed invertebrates in their natural habitats. I am concerned that many ESA listed butterflies and tiger beetles, and other listed invertebrates - some of which I observed alive in their natural habitats or hope to see - will be gone in a matter of a few years, and that I may never see them in the wild if the U.S. Environmental Protection Agency does not adequately evaluate the effects of air pollution on ESA listed species, especially ESA endangered and threatened butterflies and tiger beetles, and other listed invertebrates when it sets air quality standards. The loss of these species injures me greatly and diminishes my aesthetic and recreational interests.

11. The endangered callippe silverspot butterfly, endangered mission blue butterfly, endangered San Bruno elfin butterfly, endangered Myrtle's silverspot

butterfly, endangered Behren's silverspot butterfly, and threatened bay checkerspot butterfly, are found in the San Francisco Bay Area. When I was living in Sacramento, California, on my personal time I visited the locations where they occur many times – Point Reyes National Seashore and Golden Gate National Recreation Area, San Bruno Mountain in San Mateo County, Twin Peaks in the City of San Francisco, California State Parks in Mendocino County, several locations with serpentine grassland in Santa Clara County, a State Beach in Sonoma County, and the Solano hills in Solano county.

12. All four of these Bay Area butterflies live in restricted ranges, which makes them highly vulnerable to impacts from the human environment such as air pollution, especially for species like the San Bruno elfin, Callippe silverspot, mission blue, and bay checkerspot butterfly living adjacent to the urbanized areas. Nitrogen deposition from automobile exhaust and other sources of air pollution causing adverse habitat alteration (native grassland to highly invasive non-native “weedy” grasslands) is a significant documented threat to the bay checkerspot butterfly, and highly like to the callippe silverspot, mission blue butterfly, and the San Bruno elfin.

13. A curious but troubling aspect of silverspot butterflies (=genus *Speyeria*) is many, perhaps a majority of species in this genus, including the callippe silverspot, Behren's silverspot, and Myrtle's silverspot are highly sensitive and vulnerable to human activities – overgrazing by livestock of their habitats, changes in hydrology, pollution and trampling such as from livestock or off-road vehicles, habitat destruction, and air pollution. In fact, other species, subspecies, and populations of *Speyeria* has disappeared as a result of these effects.

14. I lived in Oceanside, California, and on my personal time, I visited specific locations in southwestern San Diego County, and the Palos Verdes Peninsula to observe the endangered quino checkerspot butterfly, and endangered Palos Verdes blue butterfly, respectively.

15. The quino checkerspot butterfly probably was once the most widespread and abundant butterflies in southern California. Today, its native grassland habitat has been reduced by livestock grazing and urban development by an estimated 95%. A few remaining populations of the butterfly are adjacent to areas where there are high levels of air pollution.

16. The Palos Verdes blue butterfly is restricted to the Palos Verdes peninsula in southwestern Los Angeles County. In 1983, its then last known population was destroyed during the construction of a softball field in the City of Rancho Palos Verdes. The U.S. Fish and Wildlife Service and the U.S. Attorney prosecuted the City and obtained a conviction, however, the case was later dismissed for non-biological reasons. The Palos Verdes blue butterfly was rediscovered in 1995 at a military base, the Defense Fuel Support Depot, on the southeastern corner of the Peninsula in San Pedro. Like the quino checkerspot butterfly, it lives in one of the largest urban centers on Planet Earth, the City of Los Angeles, which is highly impacted by air pollution.

17. In August 1984, I visited a private beach in the Calvert Cliffs area of Maryland to observe the now ESA endangered northeastern beach tiger beetle. Once found on sandy beaches from the Chesapeake Bay to Cape Cod, an early 20th Century entomologist reported there were “clouds” of them at Jones Beach on Long Island, New York. Today, there are a handful of populations, all of which are

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endangered. A significant threat to this animal is air pollution from urbanized areas in the northeast. I am hopeful of again observing this beautiful animal in its natural seashore habitat.

18. Five other endangered insects I am planning to observe in the near future are the endangered Ohlone tiger beetle, endangered Miami tiger beetle, endangered Florida leafwing butterfly, endangered Miami blue butterfly and the endangered Schaus swallowtail butterfly. The Ohlone tiger beetle is found only in Santa Cruz County, California, and the other four listed insects are found in the Miami area and the Florida Keys of the State of Florida.

19. The endangered ohlone tiger beetle likely is an ice-age relict species on California's central coast. It is an inhabitant of a few remnant native grasslands in Santa Cruz County. Habitat conversion from invasive species that benefit from nitrogen deposition from air pollution significantly increase the likely of extinction of this endangered tiger beetle.

20. The Miami tiger beetle is restricted to a biologically unique type of pine rockland habitat now occurring only in remnant patches interspersed between developed lands in Miami-Dade County by air pollution from that neighboring development. I am especially fascinated because while conducting research on tiger beetles at Museum of Comparative Zoology at Harvard University in 1983, I encountered a single tiger beetle specimen in the collection, captured many decades previously in the Miami Area that I did not recognize and suspected it was an undescribed species. It was only when the Miami tiger beetle was officially described in a scientific journal that I realized its identity.

21. These listed beetles and butterflies are imperiled in part by air pollution. I plan to return to California in future years to try to observe the Ohlone tiger beetle and as many of the listed butterflies in the Golden State as possible; I am planning on visiting south Florida to try to observe the listed butterflies and the Miami tiger beetle; and I am planning on visiting the Washington, D.C/Chesapeake Bay area in future years to watch the northeast beach tiger beetle.

22. These ESA listed butterflies and tiger beetles are imperiled in part by air pollution. Some, like the bay checkerspot butterfly significantly more than others. I plan to return to California in 2026 to attempt to observe the Ohlone tiger beetles, as as many of the listed butterflies in the Golden State as possible. It also is my plan to travel to south Florida in 2026 or 2027 to attempt to observe the listed butterflies and especially the Miami tiger beetle. During this same trip I plan to visit Chesapeake Bay to observe the endangered northeast beach tiger beetle.

23. I am injured by air pollution and the U.S. Environmental Protection Agency's failure to adequately address the effects of this Federal action on ESA listed species and their failure to fully account for its impact on endangered species will at-risk of harm from air pollution they closer to extinction, which in turn makes it much harder or even impossible for me to observe these animals. Not being able to observe these unique creatures injures me greatly and severely diminishes my personal, recreational, aesthetic and professional (retired) interests in them. I feel very depressed and disheartened that they continue to decline and because of pollution may soon no longer grace the grasslands, pine rocklands, sand dunes, sandy beaches, and other habitats where they currently are still extant.

24. If the U.S. Environmental Protection Agency were to meaningfully engage in a lawful and adequate ESA section 7 formal consultation under the Endangered Species Act, it could result in a jeopardy determination with or without Reasonable and Prudent Alternatives; or a non-jeopardy determination with or without reasonable and prudent measures and/or conservation measures to minimize harm, as defined at 16 USC 1532.

25. I derive significant recreational and aesthetic benefits from observing insect species in the wild, including the ESA listed butterflies and tiger beetles. My ability to view and enjoy these animals in the wild is dependent on the U.S. Environmental Protection Agency completing an adequate ESA section 7 review of this Federal action, as required by Law.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed this 10th day of June 2025, in Washougal, Washington

A handwritten signature in black ink, reading "Christopher D. Nagano", is positioned above a horizontal line. The signature is written in a cursive, flowing style.

Christopher D. Nagano

DECLARATION OF BRYAN P. NEWMAN

I, BRYAN P. NEWMAN, declare that if called as a witness in this action I would competently testify of my own personal knowledge as follows:

1. I have been a member of the Center for Biological Diversity since June of 2016.
2. I live in Blaine, Minnesota.
3. I am an amateur naturalist, avid bird watcher and I look for wildlife wherever I go or travel.
4. I first became interested in whooping cranes (*Grus Americana*) as a child reading about endangered wildlife. I recall being fascinated by all the efforts people have made to save these amazing birds from extinction.
5. For many years, the only cranes I saw were in zoos. I vowed to one day see the birds in the wild. That dream came true when I was in my thirties, and I saw whooping cranes in the wild at Aransas National Wildlife Refuge near Rockport, Texas.
6. The next time I saw whooping cranes was on a road trip from Minnesota to visit family in Tennessee. That encounter was very special to me. I saw a flock of sandhill cranes fly over the road and noticed that two whooping cranes were included in the flock. I had been reading about people using ultralights to help whooping cranes migrate, and I took great joy in seeing the birds making their journey on their own and knowing that the recovery efforts were making a difference.

7. I have gone to the Necedah National Wildlife Refuge in Necedah, Wisconsin, with the specific purpose of viewing whooping cranes and other wildlife. I saw and heard whooping cranes there on several occasions. I photographed the beautiful birds and shared the photos with my family and friends. I have also visited the nearby International Crane Foundation.

8. I travel to central Wisconsin a few times a year for vacations and to see family, and I look for wildlife every time I go. East of the city of Tomah, I saw a whooping crane standing in an agricultural field along with several sandhill cranes. It was great to see the cranes, but I know about the threats to birds from pollution, and that it can harm their recovery. For example, pollutants can harm ecosystems and the prey that whooping cranes rely upon. If there is less food for cranes to eat they are less likely to have the necessary energy they need for their long migration or to reproduce.

9. Nearly every year I visit central Wisconsin again to visit family or vacation, and I will continue to look for whooping cranes during my travels. For example, I often like to rent a cabin in central Wisconsin and I look for whooping cranes en route to the cabin.

10. I also travel to Tennessee and look for whooping cranes on those visits. I plan to continue making road trips to Tennessee to visit family and look for whooping cranes and other wildlife along the way.

11. In 2021, I again travelled to south Texas, where I visited Aransas National Wildlife Refuge for the purpose of seeing whooping cranes. I observed

and photographed several of the whooping cranes that overwinter there, and I enjoyed sharing that experience with my family.

12. I also enjoy traveling to South Dakota during the whooping crane fall migration. On upcoming trips, I hope to catch a glimpse of the beautiful birds again.

13. As an avid bird watcher, I follow posts from the birding community, where birders share rare bird sightings in Minnesota and adjacent states. I make efforts to try to find any reports about whooping crane sightings posted near where I live or travel. For example, I have driven to the Minnesota Valley National Wildlife Refuge in Scott County, Minnesota, to look for whooping cranes because a pair had been spotted by birders there. I did not see the birds but enjoyed looking for them. I'll continue to watch for reports of whooping cranes in my home state of Minnesota to seek out opportunities to view the cranes.

14. I am harmed when air pollution affects whooping cranes. I know that acid rain can harm the food supply and ecosystems that whooping cranes rely on for food. Their migration also requires tremendous exercise, which can increase the threats from particulate matter pollution. Adverse effects on whooping cranes from air pollution harms my ability to appreciate them in the wild. The flyway of the western flock goes right through parts of North Dakota, South Dakota, Nebraska, Kansas, and Texas, and the eastern flock migrates through the states of Wisconsin, Illinois, Indiana, Kentucky, Tennessee, Georgia, and Florida, so they are negatively affected by air pollution in many areas of poor air quality along their migration route.

15. I do not believe that the impacts of air pollution have been properly assessed by the EPA through consultation with the U.S. Fish and Wildlife Service. Given the stresses the cranes already have to endure, air pollution in areas frequented by the cranes is another serious stress that can and will severely harm their recovery, and my ability to appreciate them in the wild.

16. In addition, I have strong aesthetic, recreational, and scientific interests in the rusty patched bumble bee. Near my home in Blaine, Minnesota, I look for the bees on a weekly basis in the summer. My partner and I have planted native prairie plants in our yard, including bee balm, which attracts lots of bees. I have bee identification guides, and I know how to recognize the rusty patched bumble bee. We have wooded wetlands adjacent to our home and native prairie with lots of wildflowers, and I remain hopeful that someday I will see a rusty patched bumble bee in this bee habitat near my home.

17. I have done several “citizen science” surveys for bumble bees in the Twin Cities metropolitan area, where I have worked with scientific professionals to capture and identify numerous bee species.

18. In the summer of 2018, I walked along the shore of Como Lake in St. Paul, Minnesota, with the goal of seeing a rusty patched bumble bee, as I had heard that the species had been found near there. I was thrilled to find one as I observed dozens of bees of various species buzzing from flower to flower in this beautiful area. I pasted below my photograph of the bee.



19. With the 2017 Endangered Species Act listing of the rusty patched bumble bee, I began to learn about the status and threats facing the bee. I was fascinated to learn that the bees are found primarily in urban areas, making them susceptible to air quality impacts from urban and industrial pollution.

20. I often make trips to Lone Lake Park in Minnetonka, Minnesota, where the rusty patched bumble bee lives. The purpose of the trips is to look for the endangered bees. While I have seen and identified numerous bees, I have not yet found any rusty patched bumble bees.

21. After I learned that a population of rusty patched bumble bees lives in Noerenberg Memorial Gardens in Orono, Minnesota, I drove there and looked for the bees. I am pretty sure that I spotted one of the endangered bees, but I was unable to capture a photo to confirm it.

22. I try to quickly identify any bee that I notice when I'm out and about and taking a walk. I will continue to look for the rusty patched bumble bee

whenever I'm out walking and observing potential bee habitat such as patches of wildflowers, parks, neighborhoods, and near agricultural fields.

23. If the bee were to make progress toward recovery, I would have hope of seeing the bee in additional areas, such as near my home.

24. I do not believe that EPA properly assessed the risks of its air quality standards on the rusty patched bumble bee through consultation with the U.S. Fish and Wildlife Service. The rusty patched bumblebee has been dramatically impacted by habitat loss, which is being compounded by climate change. I am aware of a relationship between particulate matter air pollution and climate change may pose an increased risk to the rusty patched bumblebee. Without fully addressing the harms to threatened and endangered species as required by the Endangered Species Act, EPA's action is harming my ability to view and appreciate the rusty patched bumblebee because it may be harder for me to see one given increased threats from air pollution.

25. In summary, I have aesthetic and recreational interests in the preservation of whooping cranes, rusty patched bumble bees and their habitats. These interests are being harmed by the failure of federal agencies, such as the Environmental Protection Agency and U.S. Fish and Wildlife Service, to comply with the ESA with respect to air quality standards. Specifically, I believe that the failure of the EPA and U.S. Fish and Wildlife Service to follow the law makes these species more likely to suffer further population declines. And if these species decline or become extinct, this loss would deprive me of the benefits I currently enjoy from their existence. A legally valid endangered species consultation with

the U.S. Fish and Wildlife Service accounting for the full range of threats and measures to reduce those threats could result in protective measures aimed at reducing impacts of air pollution on this species, which is important to ensure that my interests in the species are preserved and remain free from injury.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this May 5, 2025, in Anoka County, Minnesota.


BRYAN P. NEWMAN

DECLARATION OF JAMES D. WILLIAMS

I, James D. Williams, declare as follows:

1. I am over the age of 21 and currently reside in Gainesville, Florida, where I have lived for over 37 years.

2. I have a PhD in Biology from the University of Alabama. I am retired from the U.S. Department of the Interior, U.S. Geological Survey, Biological Resources Division, and the Florida Fish and Wildlife Conservation Commission where much of my work involved the biological research of aquatic species in the southeastern United States, especially as it related to the population and conservation status of those species. Previously, when I was a biologist for the U.S. Fish and Wildlife Service, I worked in the Endangered Species Office in Washington, DC, from 1974–1987 and was responsible for researching, evaluating, and proposing freshwater fishes for endangered and threatened status. I also served as the chief of the Biodiversity Branch, U.S. Fish and Wildlife Service and U.S. Geological Survey, in Gainesville, Florida. For approximately nine years I taught an annual workshop on freshwater mussels of the Apalachicola basin, Alabama, Florida, and Georgia. I have also received the Freshwater Mollusk Conservation Society Lifetime Achievement Award in recognition for singular accomplishments and long-term contributions that have advanced the conservation and science of

freshwater mollusks at a national and international level. I am currently a research associate in the Florida Museum of Natural History.

3. I have authored over 175 publications, reports, presentations, or books with a primary focus on mussels and fishes of the southeastern United States. For example, I am an author of articles on the conservation status of freshwater mussels in the United States and Canada. I was also primary author of the books “Freshwater Mussels of Florida” and “Freshwater Mussels of Alabama and the Mobile Basin in Georgia, Mississippi and Tennessee.”

4. I have been a member of the Center for Biological Diversity since 2009. The Center is a nonprofit organization committed to the preservation, protection, and restoration of native species and the ecosystems upon which they depend. As a member of the Center, I participate in activities pertaining to endangered species issues. I helped organize the review of southeastern fishes and mussels included in a petition to the U.S. Fish and Wildlife Service to list those fishes and mussels under the Endangered Species Act (ESA). I also reviewed all the mussel taxa included in the petition, as well as some of the fishes. I rely upon the Center in part to represent my interests in protecting endangered species and their habitat, especially the aquatic species found in the United States.

5. I am particularly interested in the conservation of aquatic species in the southeastern United States including the following:

Fishes

Percina antesella, Amber Darter
Cyprinella caerulea, Blue Shiner
Etheostoma wapiti, Boulder Darter
Etheostoma scotti, Cherokee Darter
Percina aurolineata, Goldline Darter
Acipenser oxyrinchus desotoi, Gulf Sturgeon

Mussels

Medionidus acutissimus, Alabama Moccasinshell
Elliptio chipolaensis, Chipola Slabshell
Medionidus parvulus, Coosa Moccasinshell
Amblema neislerii, Fat Threeridge
Hamiota altilis, Finelined Pocketbook
Medionidus penicillatus, Gulf Moccasinshell
Pleurobema taitianum, Heavy Pigtoe
Medionidus simpsonianus, Ochlockonee Moccasinshell
Pleurobema pyriforme, Oval Pigtoe
Elliptoideus sloatianus, Purple Bankclimber
Reginaia rotulata, Round Ebonyshell
Hamiota subangulata, Shinyrayed Pocketbook
Pleurobema decisum, Southern Clubshell
Epioblasma penita, Southern Combshell
Ptychobranhus jonesi, Southern Kidneyshell
Pleurobema georgianum, Southern Pigtoe
Ptychobranhus greenii, Triangular Kidneyshell

6. I have worked in the southeastern United States, where these species occur, for the past 50 plus years. During this time I have sampled, studied, and published papers on most of the species listed in this declaration. I have observed these species and continue to participate in research projects involving most of them. I described or named 2 (*Etheostoma wapiti* and *Percina antesella*) of the 8 fishes listed in this declaration. As a research biologist I have participated in professional meetings evaluating conservation status of southeastern freshwater mussels and

fishes, including all taxa listed in this declaration. I am also interested in study and research regarding the highly endangered *Scaphirhynchus suttkusi*, Alabama Sturgeon.

7. I also have an aesthetic interest in these species and take joy in knowing that we have incredible aquatic biological diversity in the southeastern United States. The fact that many of these species are declining and we have lost forever numerous species does detract from my enjoyment of our aquatic biodiversity. Harm to these species, their populations, and their ecosystems also harms my own aesthetic interest in observing and enjoying them.

8. I believe very strongly that we have a moral obligation to pass on to future generations the incredible diversity that we have. Our aquatic biological diversity has inherent value and we have the responsibility to protect these species. Humankind does not have the right to eliminate or drive to extinction any living species.

9. Air pollution can negatively affect watersheds inhabited by these species and reduces the likelihood that I will be able to observe and study them in the future. Sulfur oxides, nitrogen particles, and particulate matter can be deposited directly onto waterways or subsequently runoff into aquatic systems inhabited by these species and decreases water quality. Nitrogen particles and sulfur oxides in the air can be deposited or runoff into waterbodies leading to acidification of waterbodies.

Nitrogen particles are also deposited and runoff into waterbodies from the air increasing the nutrient load in waterbodies that can contribute to harmful algal growth. These pollutants harm many species in aquatic ecosystems including species in this declaration.

10. The fact that the Environmental Protection Agency has not thoroughly analyzed how the air pollution standards for nitrogen particles, sulfur oxides, and particulate matter affect ESA listed species and has not undergone the ESA consultation process with the U.S. Fish and Wildlife Service and National Marine Fisheries Service, deprives me and the public of valuable information about the threats to threatened and endangered species like the ones in this declaration. The failure to complete the ESA consultation process deprives the Environmental Protection Agency of valuable information from expert wildlife agencies on mechanisms to reduce harms to ESA protected species.

11. I will return to the habitats of these species in the coming years as I complete various research projects on the biology, evolution, and conservation of these taxa. My research involves fieldwork and site investigations into habitat of these aquatic species so I visit habitat areas for these species on a periodic basis throughout the years to further my research. For example, in 2014 I completed a book on the freshwater mussels of Florida, which involved visiting the habitats of many of the mussel species included this declaration (*Medionidus acutissimus*,

Alabama Moccasinshell; *Elliptio chipolaensis*, Chipola Slabshell; *Amblema neislerii*, Fat Threeridge; *Medionidus penicillatus*, Gulf Moccasinshell; *Medionidus simpsonianus*, Ochlockonee Moccasinshell; *Pleurobema pyriforme*, Oval Pigtoe; *Elliptoideus sloatianus*, Purple Bankclimber; *Hamiota subangulata*, Shinyrayed Pocketbook; *Reginaia rotulata*, Round Ebonyshell; and *Ptychobranthus jonesi*, Southern kidneyshell). The remaining species (*Medionidus parvulus*, Coosa Moccasinshell; *Hamiota altilis*, Finelined Pocketbook; *Pleurobema taitianum*, Heavy Pigtoe; *Pleurobema decisum*, Southern Clubshell; *Epioblasma penita*, Southern Combshell; *Pleurobema georgianum*, Southern Pigtoe; and *Ptychobranthus greenii*, Triangular Kidneyshell) are included as part of a study of the impacts of impoundments on freshwater mussels in the southeastern United States. In addition to these mussels, 2 fishes in this declaration (*Cyprinella caerulea*, Blue Shiner and *Acipenser oxyrinchus desotoi*, Gulf Sturgeon) are included in this study. Rivers inhabited by these species are visited to evaluate existing habitat and impacts of dams. Streams inhabited by the remaining fishes in this declaration (*Percina antesella*, Amber Darter; *Etheostoma wapiti*, Boulder Darter; *Etheostoma scotti*, Cherokee Darter; and *Percina aurolineata*, Goldline Darter) will continue to be visited as part of a long-term conservation evaluation of endangered and threatened fish habitat.

12. Because my research work has included these species, any further decline of any of these taxa would affect my current and future research. Harm to these species, their populations, and their ecosystems would harm my professional interests focused on research surrounding these species.

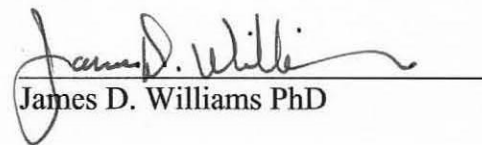
13. My interests in these species have been, and will continue to be, harmed by the Environmental Protection Agency's failure to consult under the ESA on the impacts of air pollution standards on threatened and endangered species. As a federal agency, the Environmental Protection Agency is required to comply with the ESA consultation process on any federal actions that might affect federally listed species and their critical habitat. Their failure to do so is a violation of the ESA.

14. Without consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, the Environmental Protection Agency cannot understand the full environmental impacts of the air quality standards that it authorizes. As a result, the Environmental Protection Agency has not taken all available steps to ensure that air pollution levels it approves do not harm or kill endangered and threatened species or adversely modify their critical habitat.

15. In sum, my interest in these species ranges from purely aesthetic to research and conservation. I also believe that we have a moral obligation to protect these species from further decline and extinction. My interests are being harmed by the

Environmental Protection Agency's failure to comply with the ESA consultation process on the impacts of air pollution standards on threatened and endangered species. Specifically, I believe that the failure of the Environmental Protection Agency to follow the law makes these species more likely to suffer further population declines. If these species decline or become extinct, this loss would deprive me of the benefits I currently receive from the existence of these rare animals. ESA consultation could result in protective measures aimed at reducing impacts of pesticides on these species, which is important to ensure that my interests in these species are preserved and remain free from injury.

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 28, 2025, in Gainesville, Florida.



James D. Williams PhD